

**WHAT IS CLAIMED IS:**

- Sob Act* 1. A projector, comprising:  
a light source;  
an electric optical device that modulates a light irradiated from the light source in accordance with an image information to form an optical image;  
a projecting optical system that enlarges and projecting the optical image formed by the electric optical device;  
a casing that accommodates the light source, the electric optical device and the projecting optical system;
- 10 a centrifugal fan disposed around the light source that inhales an air by a rotation thereof and that discharges the air in tangential direction of the rotation;  
an exhaust duct accommodated in the casing, the exhaust duct having a first end connected to an air discharge hole of the centrifugal fan and a second end connected to an exhaust hole formed at the front of the casing for the projecting optical system to be exposed; and  
15 at least one bent portion formed on the exhaust duct to bend an exhaust stream discharged from the centrifugal fan.
- 20 2. The projector according to claim 1, wherein the casing is approximately rectangular solid, and wherein the exhaust duct extends along at least two sides of the inside of the casing.
- 25 3. The projector according to claim 1, wherein the cross section of the exhaust duct has a larger diameter along the inside of the casing than the diameter in a direction orthogonal with the inside of the casing.
- 30 4. The projector according to claim 1, wherein the bending angle of the bent portion is 45 degrees or less.
5. The projector according to claim 1, further comprising an optical component case that accommodates optical components including the light source, the exhaust duct being

disposed along the optical component case, and an intake duct provided between the optical component case and the exhaust duct to introduce components inside the optical component case to an air intake of the centrifugal fan.

- 5     6.     The projector according to claim 5, wherein an opening that introduces the cooling air formed on a side of the optical component case opposite to a side along with the intake duct is provided, a disposition of the opening corresponds to a disposition of the optical components accommodated in the optical component case.
- 10    7.     The projector according to claim 5, wherein an exhaust opening that discharges the air having cooled the optical components is formed on the optical component case, a disposition of the exhaust opening corresponds to a disposition of the light source accommodated therein,  
the centrifugal fan is disposed on the exhaust opening with the air intake of the centrifugal fan being faced, and  
a partition member that divides an after-cooling air transferred from the light source and an after-cooling air transferred from the other optical components is provided to the exhaust opening.
- 15    8.     The projector according to claim 7, wherein a light source partition that divides the after-cooling air transferred from a light-irradiating side of the light source and the after-cooling air transferred from the backside of the light source is provided to the exhaust opening.
- 20    9.     The projector according to claim 8, wherein the intake duct is constructed by combining a concave portion formed on the outside of the optical component case and a lid member shutting the concave portion, the lid member and the partition member being integrated.

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